



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,690	12/19/2003	Shubhra Venna	GE.0023	7790
41963	7590	11/17/2008	EXAMINER	
RAMIREZ & SMITH			TSE, YOUNG TOI	
PO BOX 341179			ART UNIT	PAPER NUMBER
AUSTIN, TX 78734			2611	
			NOTIFICATION DATE	DELIVERY MODE
			11/17/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto@isrlaw.com
pto@patent-counselors.com

Office Action Summary	Application No.	Applicant(s)	
	10/743,690	VENNA ET AL.	
	Examiner	Art Unit	
	YOUNG T. TSE	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 09 August 2008.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 3 and 7-20 is/are rejected.
 7) Claim(s) 1-2 and 4-6 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 09 August 2008 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Drawings

1. The drawings were received on August 9, 2008. These drawings are acceptable.
2. The drawings (filed August 9, 2008) are objected to because the outputs which labeled “K-” outputted from the data splitter should be labeled “K-BITS” and the output which labeled “M-BIT” from the data stream combiner should be labeled “M-BITS” as shown in Fig. 3. Further, in Fig. 6, the outputs which labeled “M-BITS” from both the forward and conjugate counters should be labeled “K-BITS”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 1-20 are objected to because of the following informalities:

Claim 1, last fifth line, “counter;” should be “counter; and”.

Claim 3, lines 2-3, “the pulse positioner further comprises: a pulse positioner operably coupled to” should be “the pulse positioner is operably coupled to”.

Claim 5, line 3, “pulses” should be “pulse positions”.

Claims 2, 4 and 6-7 are objected to because they all depend from the objected precedent claim 1.

Claim 8, line 3, “system comprising” should be “system, said method comprising”; line 5, “sets;” should be “sets; and”; lines 7 and 14, “transmission” should be “data transmission”; line 17, “k-bit pulse” should be “k-bit representative pulse”; and line 18, “space,” should be “space, and”.

Claims 9 and 10 are objected to because they both depend from the objected precedent claim 8.

Claim 11, line 4, the word “against” is suggested change to “with”.

Claim 14, line 2, “the generating positive slope staircase signals for leading edge” should be “generating the positive slope staircase signal for each modulated edge of the” and line 3, “signal further comprises” should be “signals further comprises”.

Claims 12-13 and 15-20 are objected to because they are either directly or indirectly depended from the objected precedent claim 11.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 3 and 11-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

6. The amended claim 3 recites the pulse positioner is coupled to the demultiplexer through three lines; the amended claim 11 recites a step of generating a leading edge digital pulse width modulated signal, wherein a reference staircase is of positive slope having the same number of steps and occupying the same intra sample frame; and the amended claim 15 recites a step of generating a third pulse width, which is different and larger, compared to forward and conjugate pulse code widths which either raised new matter was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 12-14 and 16-20 are rejected to because they are either directly or indirectly depended from the rejected precedent claim 11.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 7-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites “wherein the system recombines the forward and conjugate pulse positions into a digital output” is vague and indefinite because the precedent claim 1 did not recite the combination of the forward and conjugate pulse positions.

Claim 8 (line 18), claim 11 (lines 5-6, 8-9, 9, 11, and 12), claim 15 (lines 2 and 5), claim 16 (lines 2-3 and 3-4), and claim 18 (line 2), the phrases “the same space”, “the same intra sample time span”, “the same number of steps”, the same intra sample time frame”, “the digital pulse width modulated signals”, “the positions”, “the forward and conjugate pulse”, “the forward and conjugate pulse code widths”, and “the forward and conjugate pulses” all lack antecedent basis.

The last two paragraphs of claim 8 lacks connection or cooperation of the precedent steps and “k-bit” is undefined.

Claims 9 and 10 are rejected to because they both depend from the rejected precedent claim 8.

Claim 11, lines 4-5 and 14-15, clarify the differences of “a negative slope linear staircase signal” and “a negative slope staircase signal”; and lines and 18-19, also clarify the differences of “a leading edge digital pulse width modulated signal” and “a leading edge digital pulse width modulated signal”.

Claims 12, 13, 15 and 18 are vague and indefinite because they all lack connection or cooperation with the precedent claim 11.

Claim 14, the charging step is also vague and indefinite since the precedent claim 11 did not include the subject matter of “high frequency switch”.

Claim 15, line 4, the phrase “a third pulse width” is vague and indefinite since the precedent claim 11 did not include a first and second pulse width.

Claims 17 and 19-20 are rejected to because they are either directly or indirectly depended from the rejected precedent claim 11.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 8-20 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy,

John J. Love, titled “Clarification of ‘Processes’ under 35 U.S.C. 101”). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Allowable Subject Matter

11. Claims 1-2 and 4-6 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.
12. Claim 7 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is 571- 272-3051. The examiner can normally be reached on Monday-Friday 10:00-6:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Mohammad H. Ghayour can be reached on 571- 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/YOUNG T. TSE/
Primary Examiner, Art Unit 2611